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The role of the United Nations system in implementing the ministerial declaration of the high-level segment of the substantive session of 2008 of the Economic and Social Council

Progress made in the implementation of and follow-up to the World Summit on the Information Society outcomes at the regional and international levels

Report of the Secretary-General

Summary

The present report has been prepared in response to the request by the Economic and Social Council, in its resolution 2006/46, to the Secretary-General to inform the Commission on Science and Technology for Development on the implementation of the outcomes of the World Summit on the Information Society as part of his annual reporting to the Commission. It reviews the progress made in the implementation of the outcomes of the World Summit at the international and regional levels, and identifies obstacles and constraints encountered. The report has been prepared by the United Nations Conference on Trade and Development (UNCTAD) secretariat based on information provided by entities in the United Nations system and elsewhere on their efforts in 2008 to implement the outcome of the World Summit, with a view to sharing best and effective practices and lessons learned.

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I. Introduction

1. The present report has been prepared in response to resolutions 2006/46 and 2007/8 of the Economic and Social Council, which request the Secretary-General to inform the Commission on Science and Technology for Development on the implementation of the outcomes of the World Summit on the Information Society, based on inputs from relevant United Nations and other entities, as appropriate.

2. In its resolution 2008/3, the Council further recommended that in submitting their reports to the Commission, action line facilitators bring to the attention of the Commission obstacles and difficulties encountered by all stakeholders in regard to the commitments and recommendations pertaining to their respective action line at the regional and international levels, and make proposals for possible action to the Commission, whenever deemed necessary.

3. The present report incorporates analyses of responses provided by 20 international and regional organizations to a letter from the Secretary-General of the United Nations Conference on Trade and Development (UNCTAD), inviting inputs on trends, achievements and obstacles in the implementation of World Summit outcomes.[1] The report does not claim to provide a comprehensive account of all efforts at World Summit implementation but focuses on major initiatives undertaken since February 2008, as reported by the relevant organizations.[2]

II. Towards the building of a people-centred, development-oriented and inclusive information society

A. Access to and use of information and communications technology

4. In many respects, the digital divide continued to narrow in 2008. An important milestone in the progress towards a global information society has now been reached: more than half the world's population has obtained at least some level of connectivity. In addition, 80 to 90 per cent of the world's population now lives within range of a cellular network, double the level in 2000. The International Telecommunication Union (ITU) estimates that the number of mobile subscriptions had reached 4 billion by the end of 2008, corresponding to a global mobile penetration of more than 60 per cent.[3] One of the benefits to emerge from mobile telephony has been the versatility of short message services (SMSs), which are used for increasingly innovative purposes, including financial transactions, market price updates, news transmission, emergency alerts and other important functions.

5. The Internet gap between developed and developing countries is also closing, albeit at a slower pace. At the end of 2008, half of the world's Internet users were in

[1] Council of Europe, ECA, ECE, ECLAC, ESCAP, ESCWA, FAO, GAID, IGF, ITC, ITU, UNCTAD, the Department of Economic and Social Affairs, UNESCO, UNIDO, UNU, UPU, WHO, WIPO and WMO.

[2] The complete submissions from each organization can be accessed on the Commission website (http://www.unctad.org/Templates/Page.asp?intItemID=2696).

[3] See "Worldwide mobile cellular subscribers to reach 4 billion mark late 2008", 25 September 2008, http://www.itu.int/newsroom/press_releases/2008/29.html.

developing countries, especially in Asia. Regionally, Africa and the Middle East are experiencing the fastest mobile and Internet growth.

6. Despite such positive trends, many challenges remain. Large disparities in terms of penetration and affordability still exist, both across and within countries and regions. In developing countries as a whole, only 12 per cent of the population uses the Internet. Moreover, the digital divide debate is increasingly shifting away from measurements of basic connectivity to issues of speed (bandwidth) and user-centric issues such as availability of local content and data privacy. The broadband divide represents a particular challenge, as it continues to widen and as there is a qualitatively very significant difference between those with and those without access to broadband Internet connections. Challenges related to low-cost access to broadband, local content development and data privacy warrant special attention by the Commission on Science and Technology for Development.

B. The broadband divide

7. In spite of the remarkable progress achieved by developing countries in deploying information and communications technology (ICT) and bridging the digital divide, they remain at a disadvantage in terms of broadband coverage, accounting for 35 per cent of the world's broadband subscribers in 2006, with Africa at less than 1 per cent. The "digital divide" is therefore giving way to the "broadband divide". Dial-up Internet is barely powerful enough to handle e-mails, let alone most local information and communications technology services. Using dial-up can mean waiting several minutes to open an e-mail and even more time to download a PDF file. The slow response discourages or even prevents people from using applications that would improve efficiency and enhance productivity.

8. Affordable broadband access is required to make full use of the opportunities created by the Internet. The United Nations system and other partners — including Governments, civil society and the private sector — are focusing on broadband issues as part of their efforts to assist developing countries in achieving World Summit targets and meeting the Millennium Development Goals.

9. It is within this context that, on the occasion of the third anniversary of the second phase of the World Summit, the Tunisian Government, in collaboration with UNCTAD and ITU and in partnership with the Global Alliance for Information and Communication Technologies and Development and the African Development Bank, organized the third ICT4All Forum — Tunis+3 in Hammamet, Tunisia, in November 2008, under the patronage of the President of Tunisia, Zine El Abidine Ben Ali. The ICT4All Forum addressed strategies and options to expand access among low-income countries to low-cost fixed or wireless broadband technology. It provided an opportunity to feature some recent broadband initiatives targeting low-income countries as well as to share national experiences relevant to the deployment of broadband. The Forum was attended by close to 1,500 participants representing more than 60 countries.[4] The ICT4All Forum is an important annual event aimed at preserving the momentum of the World Summit.

[4] See http://www.ict4allforum.tn/.

C. Availability of local content

10. From the perspective of making information and communications technology available to all, the lack of local content on the Internet and other forms of such technology (such as mobile devices) is of growing concern. It is considered a key obstacle to the achievement of an inclusive information society. Even in developing countries that boast a relatively high level of connectivity, local content — that is, information provided in local languages, reflecting the values, lifestyles and needs of local communities — is often scarce. Addressing this challenge is essential to release the full potential of the Internet and to enable knowledge and information to be readily accessed and used by all.[5] Locally produced content can help empower the poor by, inter alia, providing them with online learning facilities, creating new business opportunities, and improving access to agricultural market information and weather forecasts.

11. Increasing Internet penetration alone does not necessarily spur an increase in local content. The production of local content requires that owners or originators have the incentives and resources to create, adapt or exchange such content. Agencies that "push" global (or non-local) content are generally still more powerful and resourceful than those disseminating local content. In many developing countries, individuals and organizations lack the financial and technical resources needed to create content suited to local needs. On the supply side, an attractive business case is required for companies to develop and "push" local content. If the profitability of firms depends on a willingness among poor segments of society to pay for local content, it is plausible that the private sector alone cannot create the right market conditions to fill this gap. Rather, many content initiatives using information and communications technologies tend to "push" external content towards local communities, helping mainly to facilitate "access" to other people's knowledge. New technologies and arrangements (such as telecentres) are rarely used to strengthen the "push" of local content from local people. Thus, the balance between "push" and "pull" — or between supply and demand — is heavily weighted towards non-local content.

12. While the importance of local content has been raised in many international meetings and by donors and cooperation agencies, concrete initiatives and expertise in this area remain scarce. One issue that has to be addressed is the extent to which public-private partnerships offer a way to create more local content and services that are targeted to the poor. Setting a common agenda that takes into account the dynamics of supply and demand for local content will help bring the various stakeholders together in finding better ways to solve the local content problem. It would be useful to make an inventory of best policy practices aimed at advancing local content.

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[5] In India, for example, more than 18 million people over the age of 15 are Internet users. Nonetheless, most of the 1 billion inhabitants of India have limited access to the Internet, as they do not speak English (see http://gigaom.com/2006/08/17/local-content-for-indian-internet-growth/).

D. Data privacy concerns

13. Another area of growing concern in today's networked society relates to data privacy. Privacy concerns did not take centre stage at the World Summit on the Information Society, although privacy was considered important in the outcome documents of the Summit.[6] The issue of privacy has lately become one of the central themes of the emerging information society, not least in the light of the expanded role of search engines on the Web and of the fast spread of so-called social networking services (SNS). Data leaks and instances of cybercrime can cause significant harm to the general public, and the global information society has become more vulnerable to illegal and intrusive activities. There is also a perceived threat to the personal integrity of users as a result of entrusting too much personal information to large corporations, such as Yahoo, Google, Facebook and MySpace (a subsidiary of News Corp.). These issues are equally important for Internet users in both developed and developing countries. "Phishing" and hacking technologies have made it possible to infiltrate users' accounts and misuse their private information. Moreover, trans-border data flows have the ability to circumvent national laws. Developing countries, owing to a lack of privacy laws that meet the standards set by their trading partners in developed countries, may also risk being discriminated against in the context of international trade.[7]

14. The main purpose of data-protection legislation is to ensure that personal data are not processed without the knowledge and, except in certain cases, consent of the data subject. This is critical in order to ensure the accuracy of the relevant personal data and to enforce a set of standards for the processing of the information. There is considerable disagreement with regard to whether Internet Protocol (IP) addresses should be considered confidential data or personal data. IP addresses allow search engines to identify and use the search history of a single user to offer personalized advertisements and add the relevant commercial information to the search result page. Search engines such as Google, Yahoo and MSN argue that keeping such data private would impair their respective business models and undermine the quality of their search engines and services.[8] Similarly, information watchdogs worldwide have questioned how SNS sites such as Facebook, MySpace and Bebo handle personal data and whether the onus of protecting one's privacy should be entirely on the user. Such issues will grow in importance as the number of SNS users in developing countries expands in the coming years.[9]

15. These trends may suggest a need for more effective and up-to-date public policies and regulations at the international, regional, national and local levels. Cybersecurity and inadequate data privacy solutions are dealt with differently by countries with dissimilar priorities, challenges and levels of development. Many different national approaches have surfaced, but a global response to this truly global problem has yet to emerge. With the assistance of international organizations, notably the United Nations Conference on Trade and Development (UNCTAD) and the United Nations regional commissions, developing countries and regions have

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[6] See http://www.itu.int/wsis/index.html.

[7] In offshore outsourcing situations, data protection provisions are commonly written into service contracts.

[8] See http://www.eff.org/issues/search-engines.

[9] In China, for example, the total number of users of local leading SNS sites is expected to reach 110 million in 2009 and 180 million by 2010.

started to establish effective laws and institutions for data protection as part of their efforts to prepare cyberlaws and to increase their participation in the information society. More work is needed to raise awareness of data privacy and confidentiality issues while acknowledging cultural, social and economic differences so as to guarantee the rights and privacy concerns of Internet users in the South.

III. Implementation and follow-up at the regional and international levels

A. Implementation and follow-up at the regional level

16. United Nations regional commissions continue to support World Summit implementation through regional action plans.[10] A broad range of activities have been reported, including the facilitation of the sharing of best-practice experiences at the regional level, support for national Governments in policy development, e-services deployment and various capacity-building efforts.

1. Africa

17. The Economic Commission for Africa (ECA) continued its implementation of World Summit outcomes at the national, subregional and regional levels. In cooperation with the Governments of Canada and of Finland, it provided assistance for the promotion of an enabling policy and regulatory environment, the elaboration of regulatory frameworks, the development of national information and communication infrastructure plans and sectoral strategies with regard to e-Government, e-health, e-education and e-commerce. An increasing number of African countries and regional economic communities have established and implemented e-strategies and initiatives in line with the goals and objectives of the African Information Society Initiative, the African Regional Action Plan on the Knowledge Economy and the World Summit on the Information Society.[11]

18. Regional ICT frameworks achieved substantial results with support from ECA. The Common Market for Eastern and Southern Africa (COMESA) ICT strategy was presented at the Sixth Meeting of the Association of Regulators of Information and Communications for Eastern and Southern Africa/COMESA Telecommunications and Information Technology Committee, held in Egypt on 24 and 25 February 2008. Similarly, the ICT ministers of the Economic Community of West African States (ECOWAS), meeting in Praia on 16 October 2008, adopted legal texts on cybercrime and personal data protection. The ICT ministers of the Central African Economic and Monetary Community (CEMAC), meeting in Brazzaville on 21 November 2008, adopted a regulatory framework for ICT within the CEMAC 2010 strategy.

[10] See E/CN.16/2007/2.

[11] In 2008, Benin, Burkina Faso, Burundi, the Gambia, Mali, the Niger and Nigeria developed sectoral ICT policy implementation plans; the Democratic Republic of the Congo, Sierra Leone and Togo continued the ICT policy development process; and Burkina Faso, Ghana, Kenya and Mozambique benefited from the development of national cybersecurity frameworks. Studies on the role of ICTs in trade and economic growth and on the role of m-commerce were carried out in Egypt, Ethiopia, Ghana, Kenya, Senegal and South Africa. A study was undertaken on the role of mobile phones in trade and banking in Kenya, Senegal and South Africa.

19. Seven academia research networks involving 20 African universities were put in place and are undertaking research on the legal and regulatory environment for (a) ICT policy implementation; (b) local content; (c) open-source software; (d) mobile devices for m-payment; (e) m-health; and (f) an inter-university information system for socio-economic development.

20. During 2008, more than 400 Members of Parliament benefited from capacity-building activities on the role of parliaments in building an inclusive information society.[12] A regional workshop on mobile and e-government involving regional economic communities and national e-government focal points was organized with the Department of Economic and Social Affairs of the Secretariat in Addis Ababa from 17 to 19 February 2009.

21. ECA and the African network of the Global Alliance for ICT and Development (GAID) launched a survey on the follow-up to and the implementation of the World Summit on the Information Society outcome in Africa. Moreover, ECA, the Global Alliance and the African Union jointly organized a regional workshop on World Summit follow-up in April 2008, at which member States and relevant stakeholders reviewed the output of the survey and agreed on a follow-up mechanism and plan for ongoing review.

2. Asia and the Pacific

22. The Economic and Social Commission for Asia and the Pacific (ESCAP) continued to assist its member States with World Summit implementation and promoted the exchange of best practices at the regional level, especially those on the creation of an enabling policy and regulatory environment for the information society.

23. During the first session of the Committee on Information and Communications Technology, held by ESCAP in November 2008, member States identified their major priorities and formulated a programme of work for 2010-2011 aimed at (a) providing access to ICT in rural areas; (b) enhancing Pacific connectivity; (c) using ICT for disaster risk reduction; and (d) monitoring World Summit implementation. The session was preceded by an Expert Group Meeting on the theme "WSIS+5 and emerging issues in Asia and the Pacific".

24. In promoting the implementation of the World Summit action line "Capacity-Building and Technical Cooperation", the Asian and Pacific Training Centre for Information and Communication Technology for Development (APCICT) undertook, under the supervision of the ESCAP secretariat, a series of activities and produced various training materials in 2008. The roll-out of the Academy of ICT Essentials for Government Leaders continued through partnerships with national governmental and training institutions as well as subregional organizations.[13] Three subregional workshops were held, for South-East Asia, South Asia, and Western and Central Asia, to solicit feedback on the academic modules, as was a regional training of trainers. The first national roll-out took place in December in Mongolia, where a continuing education programme with the eight academy modules was to be offered starting in March 2009. In the Pacific Islands, a subregional academy

[12] Parliamentary information and communications technology committees were created in the Gambia, Kenya, the Niger, Rwanda, Swaziland, Uganda and the United Republic of Tanzania.

[13] See http://www.cepal.org/socinfo/default.asp?idioma=IN.

workshop was held in September in the Cook Islands. The modules will be translated into six languages: Bahasa Indonesian, Russian, Mongolian, Dari, Pashtun and French.[14]

25. APCICT also organized 10 training courses, a global forum in conjunction with the Organization for Economic Cooperation and Development (OECD) ministerial meeting, and an expert group meeting on the development of the Academy. In total, 440 participants from almost 40 countries, including 112 women, representing Governments, academia, civil society organizations and the private sector, participated in the APCICT events. In addition, APCICT launched the e-Collaborative Hub (e-Co Hub) in June 2008, an interactive space for sharing knowledge and experiences on ICT for development.[15]

26. APCICT released five knowledge products on ICT human resources capacity. They include an analytical report on the status of ICT human resources development in the Asia-Pacific region and on related trends, policies and strategies, and a research report on the development of ICT human resources capacity indicators. Two publications on ICT applications for development were also developed together with the United Nations Development Programme (UNDP), focusing on small and medium-sized enterprises and disaster management. Lastly, in support of the Korea Information Society Development Institute, the inaugural issue of a journal entitled *ICT World Today* was published, with the aim of promoting the sharing of best practices and information on regional ICT trends and development and South-South collaborations.

27. Consultative meetings for the establishment of a regional knowledge network of telecentres were held in Azerbaijan and in Bangkok, culminating in the establishment of the Network of Telecentres in Central Asia and the Asia Pacific Telecentre Network. As part of the technical cooperation project entitled "Empowering the rural area through community e-centres", a subregional workshop was organized in April 2008 in New Delhi, followed by the National Stakeholders' Consultation Workshop, held in Dhaka in June 2008, on the theme "Empowering rural areas through community e-centres".

28. Although high-income economies in Asia and the Pacific are leaders in the usage and diffusion of various technologies, the ESCAP region as a whole is still lagging behind. In order to make significant progress towards the achievement of the Millennium Development Goals and the World Summit goals, expanding connectivity and ICT access remain regional priorities. With enhanced ICT access, especially among least developed countries, landlocked developing countries and small island developing States, ICT applications should be able to deliver developmental gains to people and communities, as envisaged in the World Summit outcome documents, in a more systematic and sustainable manner.

3. Western Asia

29. The Economic and Social Commission for Western Asia (ESCWA) produces a biannual publication entitled *Regional Profile of the Information Society in Western Asia*, which is compiled from national profiles and is aimed at helping Governments

[14] The Centre was also working with ECA on the development of an African version of the Academy, which was launched on 3 March 2009.

[15] See http://www.unapcict.org/ecohub.

and stakeholders update and fine-tune their ICT strategies and implementation plans. In order to improve the quality and the accuracy of information for the 2009 edition, in November 2008 ESCWA held a Consultative Workshop on the National Profiles of the Information Society in Western Asia.

30. The "Knowledge networks through ICT access points for disadvantaged communities" project, which is implemented by the United Nations regional commissions under the leadership of ESCWA, is aimed at empowering poor and disadvantaged communities by transforming selected existing ICT access points into networked knowledge hubs. In 2008, project activities included the design of a knowledge network portal and the preparation of regional and global "knowledge strategies" for the telecentre transformation and networking process. A training workshop for telecentre staff was organized on the usage of the newly designed portal as well as on marketing and knowledge-management concepts.

31. In the light of the difficult situation in Iraq, ESCWA and the United Nations Educational, Scientific and Cultural Organization (UNESCO) acting as partners of the initiative on ICT for education in Iraq, facilitated capacity-building sessions on education strategy formulation, International Computer Driving Licence instructor training, and the creation of courseware aimed at teaching Arabic to non-Arabic-speaking Iraqi schoolchildren. This also involved the procurement and installation of equipment for the creation of ICT training centres in five Iraqi governorates as well as the provision of equipment for 10 ICT labs in both boys' and girls' schools.

32. In 2008, ESCWA organized a workshop entitled "Cyber legislation and its implementation in the ESCWA region". The workshop resulted in a proposed list of actions that focus on building the capacity of the region's legislators and a call for the formulation and development of laws that promote the regional harmonization of cyber legislation.

33. In an effort to encourage and assist Governments in the creation of citizen-friendly ICT applications, the Department of Economic and Social Affairs and ESCWA organized in November 2008, organized a three-day capacity-building workshop entitled "Electronic/mobile government (e/m-government) in Arab States: building capacity in knowledge management through partnership". The workshop identified the main areas of e/m-government, explored the issues and challenges facing the development of related applications and delved into government ICT strategies for the region.

34. In preparing the groundwork for the establishment of the ".arab" domain name, collaborative efforts were undertaken with international domain name players such as Afilias and the Public Interest Registry, as well as with communities using languages based on the Arabic script, including Persian and Urdu. In addition, the Arabic Script Internationalized Domain Names Working Group (ASIWG) was formed. It assembles experts from various Arabic- and non-Arabic-speaking countries in addition to experts from the Unicode and the Internet Engineering Task Force community.[16] Two ASIWG meetings, held in May and November, were co-organized by ESCWA. They set the rules for cooperation, defined issues, researched solutions for technical problems pertaining to the use of Arabic script in domain names, and proposed solutions for such issues as the use of diacritics, numerals and honorifics.

[16] See http://unicode.org/.

35. As a member of the Partnership on Measuring ICT for Development, ESCWA carried out several activities in 2008 aimed at achieving the Partnership's objectives. In addition to the Regional Profiles activity described above, in April 2008, ESCWA organized, in collaboration with the Arab Institute for Training and Research in Statistics and ITU, a training workshop in Amman on measuring ICT indicators. The workshop provided training on data collection of the core list of ICT indicators, including indicators on ICT infrastructure, access to and use of ICT by households and individuals, use of ICT by businesses, and trade in ICT goods.

4. Latin America and the Caribbean

36. The Economic Commission for Latin America and the Caribbean (ECLAC) continued its implementation of World Summit outcomes at the national, subregional and regional levels. In cooperation with the Government of Canada and the European Commission through the @LIS 2 programme "Alliance for the Information Society", it provided assistance for the promotion of an enabling policy and regulatory environment, the design of regulatory framework proposals and the development of national ICT agendas and sectoral strategies with regard to e-education, e-health, e-government, e-access and e-productivity in the manufacturing and agricultural sectors. An increasing number of Latin American and Caribbean countries adopted and implemented ICT strategies and initiatives in line with the goals and objectives of the Strategy for the Information Society in Latin America and the Caribbean (eLAC), following the World Summit action lines.[13]

37. Member States of ECLAC began the adoption of a second phase of the eLAC for the 2008-2010 period (eLAC2010), which included adjustments in terms of capabilities in, access to, and use of ICTs in education and training, infrastructure and access, health, public administration and e-government, the productive sector, and policy instruments and strategic tools. It recommended renewing the mandate of the majority of the eLAC2007 Working Groups on infrastructure, the creative industries, telework, financing, Internet governance, software and legislative and legal frameworks. It also solicited the creation of four new groups in e-health, ICTs and disability, technological waste and gender.

38. ECLAC continued in 2008 to facilitate the efforts of policymakers in embracing technology-enabled opportunities through the publication of 20 studies, four books related to different ICT issues relevant to the region, and a biannual publication entitled *Latin America and the Caribbean Digital Review* that was compiled from national profiles and aimed at helping Governments and stakeholders update and fine-tune their ICT strategies and implementation plans.[17] ECLAC also continued to provide technical assistance and capacity-building to the countries in the region.

39. Significant efforts were devoted to providing assistance to national statistical authorities to compile harmonized ICT indicators. In 2008 the Observatory for the Information Society in Latin America and the Caribbean (OSILAC), implemented by ECLAC with financial support from the International Development Research Centre of Canada, organized the fourth Regional Workshop on Information Society Measurement, held in El Salvador. Two workshops on ICT and education

[17] Available for download at http://www.cepal.org/socinfo/publicaciones/default.asp?idioma=IN.

measurement were held, with input from the United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute of Statistics. OSILAC published more than 10 related documents and organized capacity-building workshops on the implementation of ICT statistics.[18] In connection with these activities, ECLAC had the support of the Partnership on Measuring ICT for Development, as it is a member of its steering committee. ECLAC developed an ICT statistical information system that integrates indicators on household ICT usage from Latin American and Caribbean countries, and maintained the Protic database, which allows the exchange of experiences and the creation of synergies between ongoing projects in the region.[19]

5. Europe and the Economic Commission for Europe region

40. Under the framework of the United Nations Economic Commission for Europe (UNECE) Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, adopted in June 1998 in Aarhus, Denmark (Aarhus Convention), the Economic Commission for Europe continued in 2008 to work towards increased public access to environmental information and public participation in decision-making, so as to strengthen the protection of the environment. The parties to the Aarhus Convention adopted a decision on electronic information tools that encourages countries to develop adequately resourced national programmes and strategies for e-participation in environmental decision-making. It also extended the mandate of the Convention's Task Force on Electronic Information Tools and its clearinghouse mechanism to promote shared approaches to and standards for systems providing public access to environmental information.

41. Under its Committee on Trade, ECE continues to undertake work aimed at facilitating national and international transactions through the simplification and harmonization of processes, procedures and information flows through a working party, the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT). In 2008, UN/CEFACT significantly expanded its cooperation with the Latin American and African regions through its first meetings in Mexico in April and in Senegal in November. Those initiatives will greatly enhance the exchange of paperless trade information, both nationally and internationally, in the respective regions.

42. ECE supports ICT policy development in the economies of Central Asia through the United Nations Special Programme for the Economies of Central Asia (SPECA). Under this programme, it has since 2008 taken the lead in establishing the Project Working Group on Knowledge-based Development. ECE has conducted a number of regional and national capacity-building seminars on ICT policy and legal issues, with special reference to e-commerce.

43. ECE continues to promote safer, more efficient and environmentally friendly transport by incorporating provisions into international legal instruments that allow the use of ICTs, that is, through e-commerce, e-environment, e-employment and e-safety. In 2008, the computerization of Transports Internationaux Routiers (TIR)

[18] So far, 17 countries have already adopted OSILAC suggestions for ICT access indicators in their regular household surveys, 10 countries for ICT usage and 7 countries for ICT indicators in enterprise surveys.

[19] Available at http://www.cepal.org/tic/flash/default.asp?idioma=IN; see also www.protic.org.

carnets continued to be implemented with member Governments and through collaboration with other stakeholders. The application of ICTs is leading the advances in e-environment and e-safety in new vehicle technologies.

B. Implementation and follow-up at the international level

1. General Assembly

44. The General Assembly, in its resolution 62/182, requested the Secretary-General to submit to the General Assembly at its sixty-third session, through the Economic and Social Council, the report being prepared for the Commission on Science and Technology on the status of implementation of and follow-up of the summit. At its second plenary meeting, on 19 September 2008, the General Assembly decided to include in the agenda of its sixty-third session the item entitled "Information and communication technologies for development" and to allocate it to the Second Committee. In its consideration of the item, the Second Committee had before it the following documents: (a) report of the Secretary-General on the progress made in the implementation of and follow-up to the outcomes of the World Summit on the Information Society at the regional and international levels (A/63/72-E/2008/48); and (b) note by the Secretary-General transmitting the report of the Director-General of UNESCO on the implementation of General Assembly resolution 50/130, including the recommendations of the tenth United Nations Inter-Agency Round Table on Communication for Development (A/63/180).

45. On 19 December 2008, the General Assembly took up the report on information and communication technologies for development (A/63/411) and adopted, by consensus, resolution 63/202 on that subject. The Assembly welcomed the Connect Africa initiative of ITU, noted that for the majority of the poor, the developmental promise of science and technology, including ICTs, remains unfulfilled, and emphasized the need to effectively harness technology, including ICTs, to bridge the digital divide. It recognized the important role of ICTs in providing solutions to development challenges and that ICTs can foster economic growth and competitiveness and can contribute to poverty eradication and social inclusion. It (a) stressed the role of Governments in the design of public policies; (b) recognized the important role of the private sector; (c) recognized the potential of ICTs for technology transfer; (d) acknowledged the continuing gender divide; (e) recalled the improvements and innovations in financial mechanisms; (f) encouraged strengthened and continuing cooperation among all stakeholders to ensure effective implementation of the outcomes of the World Summit on the Information Society; (g) recognized the role of ICTs as a catalyst for the achievement of the Millennium Development Goals; (h) requested the Secretary-General to submit to the Economic and Social Council at its substantive session in 2009 a report on the process of enhanced cooperation; and (i) invited Member States to contribute to the trust fund created to ensure the meaningful participation of all stakeholders at the Internet Governance Forums in 2009 and 2010. It finally requested the Secretary-General to submit to the General Assembly at its sixty-fourth session, through the Economic and Social Council, a report on the status of the implementation of and follow-up to the resolution.

2. Economic and Social Council

46. Under its item on science and technology for development, the Economic and Social Council adopted on 18 July 2008 resolution 2008/3 and the four draft decisions contained in the report on the eleventh session of the Commission on Science and Technology for Development (E/2008/31). Resolution 2008/3 assessed the progress made in the implementation of and follow-up to the outcomes of the World Summit on the Information Society. The four decisions were on (a) participation of non-governmental organizations and civil society entities in the work of the Commission at its twelfth and thirteenth sessions; (b) participation of academic entities in the work of the Commission; (c) the report of the Secretary-General on science, technology and innovation to be submitted to the Commission at its twelfth session; and (d) the report of the Commission on its eleventh session and the provisional agenda and documentation for its twelfth session.

3. United Nations Group on the Information Society

47. Under the chairmanship of ITU, the United Nations Group on the Information Society (UNGIS) held its third meeting on 18 September 2008, with representatives from the Food and Agriculture Organization of the United Nations, the International Labour Organization, ITU, the United Nations system Chief Executives Board for Coordination, UNCTAD, the Department of Economic and Social Affairs, UNESCO, UNIDO, the United Nations Office on Drugs and Crime, the United Nations Relief and Works Agency for Palestine Refugees in the Near East, UPU and WHO. Participants took note of the fact that UNDP did not wish to act as chair of UNGIS, but would nominate a high-level representative for liaison. The Group agreed that the chairmanship would therefore rotate in the future between ITU and UNESCO, and confirmed UNCTAD as second vice-chair for 2009. Participants were briefed about the outcomes of the action line facilitators meeting held on 23 May 2008 and the open consultations on the 2009 cluster of World Summit-related events held on 15 September 2008 (see below). The group confirmed that, at the request of UNDP, ITU would take over the facilitation of action line C6 and agreed on the possible taking over of action line C7 (e-environment) by the United Nations Environment Programme (UNEP). UNGIS discussed different proposals on the best way to organize the 2009 cluster of events, but did not take a final decision. Participants were informed about Economic and Social Council resolution 2008/3, especially its paragraph 32. On this matter, the Chair invited participants to send their views to the Secretariat. Finally, the Group discussed the relationship between UNGIS and the United Nations Development Group and how to achieve a better integration of strategies and actions harnessing ICTs for development into the United Nations Development Assistance Frameworks and the Common Country Assessments.

4. Action line facilitation

48. The third action line facilitators' meeting was held on 23 May 2008, chaired by ITU, UNESCO and UNDP. Participants reported on the different action line facilitation meetings and discussed ways to strengthen the process. There was general agreement that the cluster of World Summit-related events should be concentrated into a one-week period and that it might be more attractive to discuss a number of themes instead of the different action lines. Some participants proposed

the creation of a steering committee for each action line, and even of a global multi-stakeholder advisory group for the WSIS cluster week.

49. With a view to analysing World Summit on the Information Society follow-up challenges and exploring new paths, ITU and UNESCO co-chaired an open consultation meeting on the 2009 cluster of World Summit-related events on 15 September 2008. The meeting was well attended, and discussions focused on the need to reformat the cluster of World Summit-related events. Some participants remained in favour of organizing the meetings around themes rather than action lines. Others recalled that the action lines had been endorsed by heads of State and Governments and should not be replaced by themes. It was suggested that workshops on a number of themes be organized in parallel with the action line facilitation meetings. It was agreed that an online consultation would be undertaken to discuss further the name of the cluster and the organization of the next meeting in May 2009.

5. Civil society, business and multi-stakeholder partnerships

50. During 2008, numerous conferences, seminars and publications were undertaken by civil society, business and multi-stakeholder partnerships. For example, the Information Society Project at Yale Law School hosted the third Access to Knowledge Conference from 8 to 10 September 2008 in Geneva. The meeting focused on the access to knowledge movement, access to knowledge and human rights, access to knowledge and the World Intellectual Property Organization (WIPO) development agenda, access to knowledge and international trade, copyright exceptions and limitations, open business models, technologies for access, open access to scientific literature and related themes.[20] MobileActive.org and SANGONeT organized a conference from 13 to 15 October 2008 in Johannesburg on the theme "Unlocking the Potential of Mobile Technology for Social Impact" — the largest international civil society event to date on this topic. At the third Internet Governance Forum in Hyderabad, India, the Association for Progressive Communications and the Instituto del Tercer Mundo launched the *Global Information Society Watch 2008 Report*.[21] Building Communication Opportunities, a partnership between four bilateral development agencies and six international non-governmental organizations, published a study on the impact of information and communications on development.[22]

51. During 2008, the Global Alliance for Information and Communication Technology and Development focused its attention on helping to mainstream ICT into the broader United Nations development agenda, including the Millennium Development Goals, and on helping developing countries to integrate ICT into their national development strategies and programmes. Together with the Global Compact and other United Nations entities, GAID co-organized, at United Nations Headquarters on 24 September 2008, the first United Nations Private Sector Forum, which provided a platform for securing specific pledges of support from technology and business leaders in developing a long-term response to the global food crisis and endemic poverty.

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[20] Most proceedings and resources are available at http://a2k3.org/.

[21] See http://www.giswatch.org/gisw2008/GISW2008.html.

[22] The full study is available at http://www.bcoalliance.org/system/files/BCO_FinalReport.pdf.

52. In 2008, the Global Initiative for Inclusive ICTs, a GAID partnership initiative, continued to mobilize multi-stakeholder cooperation for promoting ICT solutions and standardization for people with disabilities. A joint United Nations Institute for Training and Research (UNITAR)/Global Initiative/GAID seminar on the theme "Implementing the Digital Accessibility Agenda of the Convention on the Rights of Persons with Disabilities: Challenges and Opportunities for Signatory States", held in New York on 3 December 2008, culminated in a two-year programme, contributing to the rapid and effective implementation of the Convention on the Rights of Persons with Disabilities, in particular its article 9, which calls for a universal framework for addressing the accessibility of ICTs and assistive technologies.

53. The Paris-based International Chamber of Commerce and its Business Action to Support the Information Society (BASIS) initiative remains a privileged interlocutor in the World Summit implementation and follow-up process. In 2008, the Chamber submitted several position papers, with particular focus on Internet governance.

6. United Nations entities

54. A wide range of programme activities have been reported by entities in the United Nations system in World Summit implementation and follow-up. In carrying out these activities, United Nations entities have worked closely with national Governments, regional commissions and other stakeholders, including non-governmental organizations and the private sector.

(a) Implementation of action lines

(i) *The role of public governance authorities and all stakeholders in the promotion of ICTs for development*

55. In the effort to promote worldwide knowledge-sharing, information dissemination and state-of-the-art research on e/m-government development, the Department of Economic and Social Affairs, through the Division for Public Administration and Development Management, underpinned in early 2008 the content and operation features of the United Nations Public Administration Network (UNPAN). The Division also launched the United Nations Knowledge Repository for Electronic/Mobile Government, a "free" and openly accessible online facility aimed at including cross-sectoral national and international stakeholders and United Nations agencies in a partnership for knowledge-sharing to further the capacities of national Governments in e/m-government development and to achieve national e-solutions. Moreover, the Division published the first volume of the *Compendium of ICT Applications on Electronic Government*.

56. On the eve of the third Internet Governance Forum, in December 2008, the Department of Economic and Social Affairs, the Inter-Parliamentary Union (IPU) and ITU, through the Global Centre for ICT in Parliament, organized the Second Parliamentary Forum on Shaping the Information Society: the Role of Parliaments and Legislators. Key themes included online child protection, cybercrime and privacy. Parliamentarians were encouraged to bring a parliamentary dimension to the discussions on Internet governance.

57. The Department of Economic and Social Affairs, IPU and the Global Centre for ICT in Parliament released the *World e Parliament Report 2008*, which represents a first assessment, based on a survey of 105 assemblies, of how ICTs are being employed across the array of activities for which a parliament is responsible. Building on the results of the report, the Department, the European Parliament and the Global Centre organized the World e Parliament Conference 2008. At the conference, the Department, in collaboration with the People's Assembly of Egypt, launched the Africa Parliamentary Knowledge Network to promote collaboration, knowledge-sharing and mutual support among parliamentary administrations of African parliaments on an ongoing basis on legislative processes, research and ICT.

58. During 2008, ITU organized the Global Symposium for Regulators and Global Industry Leaders' Forum, held in Thailand in February; the Global Symposium on Human Capacity-Building, held in the United Kingdom of Great Britain and Northern Ireland in July; and the ITU Telecom Telecommunication Development Symposium and Youth Forum, held in Thailand in September.

(ii) Information and communication infrastructure

59. ITU organized five forums and various regional workshops in 2008 to raise awareness about standards and to reduce the standardization gap between developed and developing countries.[23] Moreover, the Global Standards Symposium was held in Johannesburg on 20 October. The World Telecommunication Standardization Assembly approved, among others, resolution 76 on Conformance and Interoperability Testing. Together with the introduction of an ITU mark for equipment and services, it could help enhance interoperability, as requested by developing countries.

60. With regard to radio communications, areas that are actively being studied by ITU include wireless Internet access, emergency radio communications, remote sensing systems and digital broadcasting.

(iii) Access to information and knowledge

61. In 2008, UNESCO focused its action, through the formulation of a policy framework and the reinforcement of infostructures, on the areas of information literacy, information preservation and information accessibility. UNESCO continued its efforts to strengthen the role of libraries and educational institutions as key players for fostering information-literate societies, particularly by focusing on raising awareness of the importance of integrating information literacy work into curricula. Under the Memory of the World Programme and its Registers, UNESCO safeguarded original material and raised awareness about the importance of heritage and memory. The World Digital Library was expanded to serve as a framework for national and regional developments. Special emphasis was given to promoting the availability of diverse and multilingual content on the Internet. UNESCO also promoted access to scientific information and educational resources through open access and content policies and the increased use of open-source tools in all areas of UNESCO competence.

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[23] The forums were held in Brasilia (May), Accra (May), Tashkent (June), Damascus (July) and Hanoi (September).

62. ITU held numerous workshops, conferences and symposia, making extensive materials freely and widely available on the Web, including information portals, practical ICT toolkits and online databases. With a view to deepening its dialogue with academia and universities, ITU organized a series of conferences on standardization-related issues. The first Kaleidoscope event, "Innovations in Next-Generation Networks (NGN)", held in Geneva in May, sought to link universities to ITU activities and studies on new and emerging technologies. A second Kaleidoscope, "Innovations for Digital Inclusion", will be held on 31 August and 1 September 2009 in Argentina.

63. The World Intellectual Property Organization (WIPO) promotes the role of intellectual property rights in enhancing the wider and more user-friendly distribution of content as a tool for reducing the "digital divide". To carry out work related to the WIPO Development Agenda, the 2007 WIPO General Assembly established a new Committee on Development and Intellectual Property. During its second session in July 2008, the Committee discussed possible activities to meet the Development Agenda goals in the field of copyright, including the following: (a) activities to promote understanding of problems related to the identification of public domain material (e.g., orphan works, use of rights management technologies, the role of search engines); (b) a possible study on the public domain; and (c) activities on new approaches to copyright licensing (e.g., creative commons, open-source software), including coexistence with more traditional commercial or proprietary licensing models.[24] Discussions will continue during the third session of the Committee, in April and May 2009.

(iv) Capacity-building

64. The Department of Economic and Social Affairs and IPU, through the Global Centre for ICT in Parliament, have started to develop a legal repository aimed at gathering legislation from various countries on emerging ICT issues in order to facilitate the sharing of legislative practices. The repository currently contains legislation from more than 70 countries on six main topics (child online protection, cybercrime, open standards, privacy, freedom of information and e-accessibility). The Division for Public Administration and Development Management supported several technical cooperation activities aimed at strengthening the internal capacity of Governments to use ICT for a more effective and efficient service delivery and for improved service outputs.[25]

(v) Building confidence and security in the use of ICT

65. Work continued under the Global Cybersecurity Agenda (GCA). The momentum generated by GCA and the broad nature of that ITU initiative have resulted in interest on the part of other stakeholders and in opportunities for collaboration and cooperation. ITU has carried out significant work in security architecture, encryption and authentication and information security management systems. In 2008 ITU issued a number of security-related recommendations as well as the ICT Security Standards Roadmap, a database for approved ICT security

[24] See http://www.wipo.int/edocs/mdocs/mdocs/en/cdip_2/cdip_2_4_prov_2.doc.

[25] As part of its "Capacity Building Initiative on ICT for Development", in 2008 the Division for Public Administration and Development Management provided assistance for the implementation of e-government projects in Belize and Ghana.

standards. ITU, the European Network and Information Security Agency and the Network and Information Security Steering Group produced a manual entitled *Security in Telecommunications and Information Technology*.

66. In 2008, a High-level Segment of the ITU Council provided Ministers and Councillors from member States the occasion to exchange views on cybersecurity and climate change. The Council also adopted the (modified) resolution 1282 on the role of ITU in the implementation of World Summit outcomes.

67. Within the framework of the Network of Centres of Excellence, sponsored by the Government of Italy,[26] UNCTAD, in close collaboration with the National Agency for Computer Security of Tunisia, organized a training session on cybersecurity in Tunis, in October 2008. The training session offered an opportunity to a large number of African ICT specialists and engineers to upgrade their skills regarding the technical aspects of cybercrime and computer security and to increase their awareness of broader cybersecurity challenges and related policies.

(vi) *Enabling environment*

68. A new module on Universal Access and Service was launched on the ITU-infoDev ICT Regulation Toolkit, a Web-based tool that provides regulators, policymakers, telecom service providers, sector experts and the general public with updates on regulatory topics, best practices and case studies.

69. A series of regional regulatory meetings, workshops, training events and direct assistance activities were carried out. The eighth Global Symposium for Regulators took place in Pattaya, Thailand, from 11 to 13 March 2008 and produced a set of best-practice guidelines on innovative infrastructure sharing and open access strategies to promote affordable access for all.

70. Under the Global Capacity-building Initiative, launched in 2007 by ITU, infoDev and the World Bank, a training programme for regulators was delivered in 2008 focusing on costing methodologies and cost calculation.

71. UNCTAD continued to assist Governments of developing countries with ICT policies conducive to their increased participation in the information economy. This included support in monitoring the information economy, preparing and reviewing national ICT policies and initiatives, and preparing legal frameworks supportive of the development of e-commerce and the realization of e-government services. UNCTAD, through its law reform programme, promoted, harmonized regional cyberlaws, preparing a comparative review of cyberlaws and building the capacities of various stakeholders in Africa, Asia and Latin America. UNCTAD facilitated three meetings of the East African Community Task Force on Cyberlaws, with a view to ultimately preparing a legal framework for the harmonization of cyberlaws in the region. In Asia, technical assistance was offered primarily to Cambodia and the Lao People's Democratic Republic. Additional capacity-building activities are needed for policymakers and parliamentarians to enhance their understanding of the legal implications of ICT before processing and enacting cyberlaws in compliance with the Association of Southeast Asian Nations (ASEAN) e-ASEAN initiative.[27] In Latin America, some 100 government and private-sector representatives from

[26] http://www.unctad.org/noce.

[27] See *Information Economy Report 2007/2008*.

member countries of the Latin American Integration Association were trained by means of distance learning and face-to-face training workshops on the legal implications of ICT.

72. As part of the seventeenth session of the World Intellectual Property Organization (WIPO) Standing Committee on Copyright and Related Rights, held in November 2008, several presentations were made on the limitations and exceptions to copyright and on the need for specific user groups — such as visually impaired persons, libraries and archives, and educational institutions — to have access to digital content under reasonable conditions and in accessible formats. WIPO member States acknowledged the special needs of such specific user groups and stressed the importance of addressing those needs, especially in least developed countries. The WIPO secretariat will prepare a questionnaire on limitations and exceptions related to educational activities, libraries and archives, and provisions for disabled persons, as well as digital technology in the field of copyright.

(vii) ICT applications

a. E-government

73. In 2008, the Department of Economic and Social Affairs and the Division for Public Administration and Development Management organized various capacity-building workshops in back-office management for e/m-government and in the implementation of e-government services, policies, strategies and solutions (Shanghai, China, 27 and 28 May, and Beirut, 18 to 20 November). The Division also strengthened the technical capacity of the UNPAN Online Training Centre with a governance and public administration learning content management system encompassing up to 15 online, multilanguage courses on public administration. During 2008, the courses were delivered to 1,525 participants from around the world. In partnership with the Centre for Technology in Government, University of Albany, New York and Microsoft, the Division finalized the development of METER2, an interactive Web-based tool to assist Governments in monitoring and refining their enabling environment for e-government.

74. In 2008, the Division for Public Administration and Development Management published the *United Nations E-Government Survey 2008: From E-Government to Connected Governance*,[28] a comparative analysis of the e-government readiness of the 192 Member States. The survey focuses on e-government initiatives directed at improving operational efficiency through the integration of back-office functions.[29] An Expert Group Meeting on the E-Government Survey: Getting to the Next Level was organized in New York, on 11 and 12 December, with the purpose of reviewing and validating the survey questions in the effort of enhancing the quantitative part of the survey by developing five sets of measurable, additional/revised e-government indicators.

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[28] United Nations publication, Sales No. E.08.11.H.2.

[29] The following countries requested and funded the advisory service missions of the Division for Public Administration and Development Management to strengthen their respective e-government capacities to develop solutions and services, as well as policies and strategies: Bahrain, Colombia (October 2008), Lesotho (June 2008), Oman (May and November 2008), and Singapore (June 2008).

b. E-business

75. In 2008, the Universal Postal Union (UPU), ITU and the Governments of India and of Bhutan carried out a progress review of their common telekiosks project.[30] That project, funded by the Government of India, Bhutan Post, Bhutan Telecom, ITU and UPU, involved the computerization of 38 selected post offices with equipment provided by ITU and UPU and the creation of a local area network serving the entire postal network in Bhutan. So far, the main beneficiaries of the project have been students using telekiosks to access their examination results and search for information. Telekiosks have also facilitated the use of e-government services and have been widely used by foreign workers for the renewal of work permits. Among the challenges identified are low-speed connectivity, maintenance and replacement of the equipment in mountainous areas, the low literacy rate and the overall economic condition, which is characterized by a lack of economic growth and diversity. A joint ITU/UPU/South Africa project will be launched in 2009 with the objective of improving connectivity in rural areas and underserved communities of southern Africa.

76. The UPU International Financial System network, which provides, within national post offices, secure and affordable money transfer services to migrants, welcomed eight new countries in 2008, bringing the total number of countries exchanging remittances to 39. It is expected that a dozen more countries will join the network in 2009.

77. The twenty-fourth UPU Congress, held in August 2008, renewed its support to the implementation of World Summit outcomes and approved an electronic services action plan[31] to further enhance the deployment of electronic postal services. The plan recognizes the need for Governments to develop sector strategies aimed at improving the usage of electronic postal services and at assessing their impact on postal operators and their customers. It encourages Governments to use post offices as communication centres. It also urges UPU to assist Governments and postal operators in developing their e-services strategies and to promote the global interoperability of electronic postal services. In addition, the Congress invited UPU member countries to consider the contribution of the postal network when formulating national ICT policies, in particular in the areas of e-business and e-government.[32] Finally, the Congress approved a resolution aimed at facilitating e-commerce through the postal sector in developing and least developed countries. The UPU is currently investigating ways to strengthen the postal sector's capabilities to support underserved communities that wish to access domestic and cross border e-commerce marketplaces and e-trade gateways.[33]

78. The International Trade Centre (ITC) continued in 2008 to promote and deploy e-business solutions and to deliver advisory services to small and medium-sized enterprises through its Certified Trade Advisers Network in developing countries. At the project level, ITC harnessed the potential of mobile technologies to strengthen the competitiveness of exporters in selected countries. Internet marketing and e-commerce-related capacity-building was undertaken by ITC in Kyrgyzstan, Tajikistan and Morocco, while advisory services for using ICT to enhance exporter

[30] http://www.itu.int/ITU-D/tech/RuralTelecom/UPU_Bhutan.pdf.

[31] Congress resolution C 33/2008.

[32] Ibid.

[33] Ibid.

competitiveness were provided to small and medium-sized enterprises in Ethiopia, Rwanda and Uganda. ITC finalized its evaluation of the potential of e-commerce applied to the field of digital content with the Trade in Sounds seed funding, in partnership with WIPO.[34]

79. In order to promote e-business at the level of the small and medium-sized enterprise, ITC is further exploring the potential of mobile communications. A business-matching application is being deployed in Liberia, allowing market women and women farmers to exchange trade leads over a general packet radio service-based application. ITC will also complete its four Online2Export e-commerce training modules, with various supports being used for capacity-building. The obstacles encountered relate to the lack of significant resources available for innovative technology-based projects. In particular, since projects funds were allocated to specific geographies, adopting a multi-stakeholder approach and engaging with various United Nations agencies has proved to be difficult. ITC experienced overselling vendor behaviour in beneficiary countries, where Web agencies or information technology companies do not adequately manage the expectations of their institutional clients. ITC recommends a strengthening of partnerships with the private sector, which must be increasingly sought in the World Summit follow-up and implementation process.

80. As the United Nations agency specifically mandated to promote the development of manufacturing industries, the United Nations Industrial Development Organization (UNIDO) focuses its ICT-related development assistance on micro, small and medium-sized enterprises. The Refurbished Computer Programme was established in 2008 in partnership with Microsoft and with the active support of the UNIDO National Cleaner Production Centres. Its main goal is to provide entrepreneurs with access to affordable quality hardware, relevant software and adequate ICT training, and to manage the entire life cycle of used computers with local e-waste recycling solutions. The refurbished computer centre of excellence and e-waste model was successfully piloted in Uganda with the establishment of the privately funded Uganda Green Computer Company Limited. The Centre was inaugurated in June 2008 by the Prime Minister of Uganda and the Director-General of UNIDO. The model is currently being replicated in sub-Saharan Africa, the Middle East and Latin America.

81. UNIDO and Hewlett-Packard established a partnership in May 2008 to collaborate on the deployment of the "Graduate Entrepreneurship Training through IT" (GET-IT) programme in Africa. GET-IT provides training on business and information technology skills to unemployed youth and graduates in areas such as finance, management, marketing, operation and management by designated local non-governmental organizations. It has been implemented in six countries in Africa and was expanded in 2009 to additional countries in Africa and the Middle East. The overall goal of the programme is to reach 500,000 unemployed or underemployed students by 2010.

82. In the context of the local software industry initiative for Uganda, a local software development centre in East Africa will be established in 2009 — in close cooperation with Microsoft and the Government of Uganda — to act as a centre of

[34] See http://www.tradeinsounds.com/.

excellence and incubator involving academia, industrial associations, the private sector and relevant public institutions.

c. E-health

83. The World Health Organization Global Observatory for e-Health continues to monitor, analyse and report on developments and trends in e-health.[35] Its second global survey is under way and will present country-specific information on the World Summit e-health implementation for 2008. It will examine in greater detail areas such as policy, partnerships, infrastructure, funding, capacity-building, legal issues and the adoption of established and emerging applications, such as mobile health.

84. The improvement of health information systems is addressed through partnerships such as the Health Metrics Network.[36] During 2009, the Network will publish the third edition of its *Framework and Standards*, which is increasingly being adopted as a technical guide. More than 70 countries so far have received grants for intensified efforts to strengthen their health information systems with Network and partner support. Obstacles to achieving widespread health information systems include the design, governance, funding and ability to manage complex ICT deployments. The health sector may need to invest considerable funds to harmonize standards and to ensure the interoperability that is required for efficient and effective exchange of health data.

85. As action line facilitator, WHO recognizes the broad scope of ICT in health and the significant effort still required to meet the World Summit commitments. A priority in coming years will be to address common concerns related to the legal and regulatory landscape, as well as the improvement of systems for monitoring disaster and emergency response. Addressing these concerns requires effective international collaboration and investment across sectors.

d. E-learning

86. UNESCO continued to support numerous e-learning initiatives in all regions of the world. Particular emphasis was put on offering capacity-development opportunities for ministries of education, notably to develop ICT in education policies and plans. UNESCO trained more than 400 policymakers and planners from 26 countries on planning for ICT in education integration. Higher education and teacher education institutions, as well as educators in community learning or multimedia centres, benefited directly from those e-learning activities. The work undertaken on Open Educational Resources (OER) with the support of the Hewlett Foundation, offered a unique opportunity to over 600 participants from 90 countries to learn about OER and discuss key topics on a regular basis. That group deliberation resulted in a publication entitled *The Way Forward*, on the priority areas for advancing the OER movement. Encouraged by discussions around the "$100 laptop"/One Laptop Per Child initiative, UNESCO co-facilitated with the World Bank and infoDev the e-learning World Summit follow-up May 2008 meeting on the theme "Low-cost ICT Devices for Education", with 70 participants from the private sector, civil society and international organizations. Concrete cooperation

[35] www.who.int/GOe/en.

[36] www.who.int/healthmetrics.

between different players was noted. InfoDev and UNESCO will launch a discussion forum on the topic before the next Geneva World Summit events in May 2009.

87. In 2008, the Information Management Resource Kit (IMARK) e-learning initiative continued to expand, providing on-the-job training through a curriculum of 113 lessons in five modules for technicians and managers at the national and local levels. IMARK provides an interactive self-paced learning environment in which new concepts, approaches and attitudes for effective information management can be learned. The Food and Agriculture Organization of the United Nations (FAO), UNESCO and a wide range of national and regional partners facilitate the uptake of all of these materials, which have now reached more than 75,000 individuals.[37]

e. E-environment

88. The World Meteorological Organization (WMO) is committed to the promotion, coordination and support of implementation of ICTs for improving global, regional and national production and the exchange and distribution of information and warnings on weather, climate and water.

89. In the area of e-environment, WMO continued in 2008 to establish monitoring systems, using ICTs, to forecast and monitor the impact of natural and man-made disasters. The functional architecture and technical compliance standards of the WMO Information System (WIS), which collects and shares weather, water and climate information for all WMO and related international programmes, were refined and published in 2008. As of December, 36 countries were nominating WIS centres, including 13 Global Information and System Centres (GISCs) and more than 80 Data Collection or Production Centres. Those candidate centres will be presented to the Commission for Basic Systems to ensure compliance with WIS standards and their long-term sustainability. The first of the new WIS GISCs is expected to become operational during 2009, with other centres coming online in 2010.

90. In the context of its promotion of the use of the Common Alerting Protocol for early warning and emergency applications, WMO, in collaboration with ITU and OASIS, held a successful implementers workshop in December 2008. WMO members the United Kingdom of Great Britain and Northern Ireland, France and the European Centre for Medium-range Weather Forecasts also organized a successful workshop in November 2008 on the use of geographical information systems utilizing international standards, such as OGC/ISO Web mapping and Web feature services, for enabling system to system data exchange in support of decision-making and warning systems.

91. Solving the E-Waste Problem (StEP) is a multi-stakeholder initiative coordinated by the United Nations University in partnership with UNEP, UNCTAD and UNIDO (which joined in 2008), in view of the need to foster societies capable of sustainably mitigating the environmental consequences resulting from the production, usage and disposal of ICT goods. The initiative seeks to develop just and environmentally safe solutions for the e waste problem through analysis, planning and pilot projects. In 2008, StEP signed a memorandum of understanding with the secretariat of the Basel Convention that set the foundations for effective

[37] See www.imarkgroup.org.

collaboration in research, capacity development, policy and outreach. In addition, StEP was, inter alia, supported by UNEP in the carrying out of a scientific research project entitled "Recycling — from e-waste to resources". StEP also assigned the Centre for Environment and Development for the Arab Region and Europe as its focal point for the Middle East and North Africa region. Discussions are under way to establish more regional focal points.

f. E-science

92. The last e-science action line facilitator meeting was devoted to the theme "Access to scientific knowledge and dissemination", particularly for developing countries. Participants echoed their support for "open access" to scientific information.

93. A major obstacle to science education in Africa is the lack of qualified and trained science teachers. The UNESCO Science Sector launched a project called the African Virtual Campus, which enhances the capacity of member States in sub-Saharan Africa to train such teachers through e-learning. In 2008, UNESCO provided training in the pedagogy of online module production, in e-learning and distance learning to 90 university lecturers from 10 French-speaking countries of West Africa. Centres were created and equipped with infrastructure in Benin and Senegal.

94. WMO continued to promote the long-term systematic and efficient collection, dissemination and preservation of essential scientific digital information, such as meteorological data, in all countries. A special achievement in 2008 was the development of a gateway between two very popular search standards (ISO 23950 — Search and Retrieval via URL and Catalogue Search for Web), significantly facilitating the discovery of data and relevant information for science.

95. In 2008, Research4Life was launched as a corporate identity for three public-private partnership programmes providing access to 4,500 scientific journals, several major databases and online books and reference works, with content available in 15 languages. The programmes are: Access to Global Online Research in Agriculture (AGORA), the Access to Research Initiative (HINARI) for Health, and Online Access to Research in the Environment (OARE). The programmes bring together more than 100 publishers, three United Nations organizations, two major universities, philanthropic foundations, technology partners and others, with the single goal of improving access to and training on essential information for life where it is most needed and least affordable. All partners involved in the programmes have committed to continuing these programmes until at least 2015, to tie in with the timeline of the United Nations Millennium Development Goals. The online portals of the three programmes include subject-specific content necessary to improve conditions in developing countries, in health, agriculture, food security, and the environment, all core to the Goals. Access is provided free or at very low cost to researchers, educators, policymakers, librarians and students in almost 4,000 publicly funded institutions in 114 of the world's poorest countries.

g. E-agriculture

96. The e-Agriculture Community of Expertise is a global initiative launched by FAO to enhance the role of ICTs in agricultural development and food security. In 2008, it expanded to 4,200 community members (encompassing policymakers,

planners, development practitioners, farmer organizations, researchers and information and communication specialists involved in agriculture and rural development) from more than 150 countries. The community activities comprise three components: a Web-based multilingual collaboration space on a neutral domain (www.e-agriculture.org), face-to-face events, and in-country interventions.

97. The year 2008 was particularly successful for the Web-based collaboration component of the community's activities (www.e-agriculture.org). The platform, which relies largely on the efforts of volunteers to lead discussions and assist in providing content, contributed to the development of policies and best practices through the organization of online forum debates and capacity-building courses. However, the initiative is faced with the challenge of sustaining itself on limited contributions of human resources by FAO and partner organizations. There are no funds dedicated solely to e-agriculture activities available to support its expansion. Its continued success will depend on the active involvement of a wide range of stakeholders and in-kind contributions from institutions in the development community and the private sector, along with envisaged structural changes such as the establishment of a formal secretariat in order to support country interventions.

98. At the May 2008 World Summit on the Information Society follow-up cluster of events, held in Geneva, FAO held a special interactive session on the theme "What role could the $100 (XO) laptop play outside the educational sphere for which it was originally intended — specifically related to agriculture and rural development?" The discussion focused on the adaptation of the One Laptop Per Farmer (OLPF) initiative into an OLPC variant.

99. E-agriculture stakeholders contributed expertise through discussions in various other international and regional forums. At the e-Agriculture India Conference in July 2008, the global e-agriculture initiative discussed the role of public-private partnerships and communities of practice in supporting and developing e-agriculture. FAO facilitated the e-agriculture panel at the World Congress of the International Association of Agricultural Information Specialists, the Asian Federation for Information Technology in Agriculture and World Congress on Computers in Agriculture.

100. In November 2008, the Mobile Telephony in Rural Areas Online Forum examined the key challenges that rural communities face in enhancing the benefits of mobile telephony. At the January 2009 ShareFair, held in Rome, from 20 to 22 January 2009, which focused on the knowledge-sharing aspects of agricultural development and food security initiatives, several sessions, including "Rural telephony" and "Leveraging connections among networks" featured the e-agriculture agenda.[38]

(viii) Cultural diversity and identity, linguistic diversity and local content

101. During 2008, UNESCO activities were developed in the framework of the International Year of Languages 2008, involving a series of conferences concerning standard-setting instruments promoting multilingualism, linguistic and cultural diversity in cyberspace and linguistic diversity, globalization and development.

[38] The ShareFair took place at FAO headquarters and was organized by Bioversity International, the CSIAR ICT-KM programme, FAO, IFAD and WFP; www.sharefair.net.

102. In June 2008, the Internet Corporation for Assigned Names and Numbers (ICANN) approved the introduction of Internationalized Domain Names (IDNs) in Internet addresses, which will enable millions of users to access the Internet using their own, non-Latin scripts. UNESCO established a close relationship of cooperation with ICANN and participated in the policy design through the ICANN Governmental Advisory Committee, with a view to ensuring that all linguistic and cultural communities were represented in the global information networks; providing linguistic expertise; raising awareness among its member States about the implementation of IDNs; and building capacities in developing countries.

103. The UNESCO Open Training Platform project is an online collaborative hub to free learning resources in all development domains, especially language, to better serve the needs of local peoples worldwide in terms of knowledge and skills acquisition. It is enriched by more than 1,600 members from all United Nations agencies and over 630 other institutions dedicated to development, including language-related issues. The UNESCO study entitled "Measuring Linguistic Diversity on the Internet" was updated in 2008, under the title "Twelve years of experiences in measuring linguistic diversity on the Internet: balance and perspectives".

104. ITU launched a special initiative on assistance to indigenous people to create dedicated actions and projects with respect to equitable access to and use and knowledge of ICTs, based on the preservation of their heritage and cultural legacy. Planned activities include (a) the identification of and support for self-sustaining projects for indigenous communities in the Americas region; (b) the provision of ICT equipment for telecentres, giving indigenous people access to ICTs with the aim of increasing their knowledge and use of ICTs to help them become members of the global information society; (c) the promotion of ICT education through online training, the encouragement of research on information, and adaptation to innovative forms of networking; (d) a study on ICT access, use and knowledge for indigenous communities in Africa and Arab regions and the identification of particular needs for the development of their respective ICT portals; and (e) a workshop on ICTs for indigenous communities in Africa for the development of guidelines for their ICT portals.

(ix) Media

105. In the light of the sixtieth anniversary of the Universal Declaration of Human Rights, UNESCO conducted a series of World Press Freedom Day celebrations at the national level in more than 100 countries on 3 May 2008 and hosted an international high-level symposium on freedom of expression in Paris in 2008, focusing on the central role it plays in promoting dialogue, democracy and development. Meanwhile, a series of celebrations were conducted at the national level. Related activities also included the launch of the second revised edition of the publication *Freedom of Information: A Comparative Legal Survey*, and the ongoing project to develop a freedom of expression toolkit for secondary-school students.

106. The International Programme for the Development of Communication (IPDC) continued to play its role as a resource-mobilization mechanism for fostering media development. The success of IPDC reflects the global role and leadership of UNESCO in promoting the development of free, independent and pluralistic media. With a budget allocation of nearly $2 million, 70 projects were launched in April

2008, with the support of IPDC, in 50 developing countries. Ninety new project proposals were received from local media organizations for submission to the February 2009 IPDC bureau meeting.

107. The comprehensive set of Media Development Indicators, which was endorsed by the IPDC Intergovernmental Council in March 2008, was published in English, French, Spanish, Russian and Arabic as well as other languages. It constitutes an important diagnostic tool for assessing the state of the media in a national context and helping stakeholders determine the areas requiring development assistance. These indicators have now been recognized as a major standard-setting tool by stakeholders and United Nations agencies dealing with media development and good governance. In cooperation with other stakeholders, UNESCO is piloting the indicators in several countries, including Croatia, Kyrgyzstan and Mozambique.

108. The strengthening of the United Nations inter-agency collaboration in communication for sustainable development was pursued further. The eleventh United Nations Inter-Agency Round Table on Communication for Development, held in Washington, D.C., in March 2009, dealt with the monitoring, evaluation and institutionalization of communication for development in the United Nations system.

109. The second phase of the Community Multimedia Centres (CMC) scale-up in Africa, led by UNESCO, has allowed the establishment of more than 60 CMCs in Mali, Mozambique and Senegal. Furthermore, almost 30 new projects to develop community media and CMCs have been launched in developing countries.

110. UNESCO further developed its cooperation with the European Commission, the United Nations Alliance of Civilizations and the Commonwealth Broadcasting Association on the development of media to ensure access to information and knowledge, and pioneered the development of a universal model of a teacher training curriculum for media and information literacy. A comprehensive project to enhance professional standards and self-regulatory media accountability system was launched in August 2008 targeting countries in South-East Europe.

(x) Ethical dimensions of the information society

111. After the three regional events organized with the support of UNESCO in Latin America, Africa and Europe, a fourth regional conference for the Asia-Pacific region on the ethical dimensions of the information society — the first Conference on Info-ethics — was held in Viet Nam in 2008. Seventy participants from Governments, the private sector, civil society and UNESCO discussed issues such as accessibility, confidentiality, privacy, diversity and respect for fundamental human values. The main goal of the Conference Action Plan initiative was the implementation of the action plan resulting from the first Info-ethics Conference for Latin America and the Caribbean. The intellectual contributions to and the results of the Conference were published and made available online.[39] The project also facilitated the setting up of a "Universities Network on Info-Ethics" and a "Latin-American Youth Network on Info-Ethics".

[39] See http://portal.unesco.org.

(b) Implementation of themes

(i) Financing mechanisms

112. The Economic and Social Council, in its resolution 2008/3, recommended that the United Nations Group on the Information Society organize focused, open-ended multi-stakeholder consultations on the implementation of paragraphs 3 to 28 of the Tunis Agenda, concerning financial mechanisms for meeting the challenges of ICT for development. At the third meeting of UNGIS, held in September 2008, a first round of discussion within UNGIS took place, and the Chair invited participants to send their views to the Secretariat.

113. The Tunis Agenda for the Information Society stressed that financing of ICT for development needed to be placed in the context of the growing importance of the role of ICT not only as a medium of communication, but also as a development enabler and a tool for the achievement of the internationally agreed development goals and objectives, including the Millennium Development Goals.

114. ICT development generally entails substantial investment. Many countries, especially least developed countries, are unable to meet such financial demands on their own and have to draw on the private sector and external sources for investment. Most donor countries and multilateral agencies recognize the need for ICT development and have supported a variety of projects. Assistance for ICT for development activities is usually built around partnerships between multilateral and bilateral agencies, local ministries (such as communication, finance, education, health and local government), civil-society groups and the private sector. International organizations and development agencies as well as regional development banks have provided resources to help countries develop e-strategies and policies.

115. Existing mechanisms for funding the information society continued to be utilized to fund the growth of new ICT infrastructure and services. Foreign direct investment in particular has allowed many countries to have access to technology, capital, management skills and export markets. Developing countries accounted for a significant share of "greenfield" foreign direct investment projects in ICT over the past several years.

116. At the Conference on Financing for Development held in November 2008 in Doha, GAID drew attention to the potential of new Web-based, distributed and viral modes of mobilizing financing for development by convening a high-level working session on innovative financing for digital development. During the event, business leaders and innovators brainstormed on new ways to mobilize resources for realizing the ICT for the development agenda via Web 2.0 technologies and social networking platforms, drawing upon the outcomes and recommendations of the landmark GAID conference, United Nations Meets Web 2.0, on new media, new entrepreneurs and new ICT opportunities in emerging markets, held on 25 and 26 March 2008 in New York, and of the Global Forum on Access and Connectivity: Innovative Funding for ICT for Development, held on 19 and 20 May 2008 in Kuala Lumpur.

117. The Digital Solidarity Fund, established in Geneva in 2005 as an innovative financial mechanism for ICT development of a voluntary nature open to interested stakeholders, has not been adequately supported and therefore was not able to provide large-scale financing for ICT projects.

(ii) Internet governance

a. Enhanced cooperation

118. The Tunis Agenda outlined the need for enhanced cooperation for public policy issues pertaining to the Internet and for monitoring performance in that regard. The process was begun in 2006 by the Special Adviser to the Secretary-General for Internet Governance. In 2007, the Department of Economic and Social Affairs was entrusted by the Secretary-General to continue the consultation process and to participate in the facilitation of the reporting process on the enhanced cooperation on public policy issues pertaining to the Internet. On 12 March 2008, the Office of the Under-Secretary General of the Department requested and received annual performance reports from 10 organizations on the topic of enhanced cooperation. Several common elements appeared in the responses.

119. All organizations reported that they had made efforts to reach out to other stakeholders. The government-led organizations had undertaken activities to broaden cooperation with business, civil society and the Internet community. Meanwhile, the Internet community organizations reported on their outreach to Governments, business and civil society. Almost all organizations indicated that they had actively participated in the Internet Governance Forum, as most of them (including ICANN, the Internet Society (ISOC), ITU, OECD and UNESCO) had representatives either in the IGF Multi-stakeholder Advisory Group or in the IGF Chair's Advisory Group. Several organizations (including the Council of Europe, ISOC, ITU, OECD, UNESCO and the World Wide Web Consortium) participated in the creation of IGF Dynamic Coalitions. There were plans to continue to focus on IGF in its multi-stakeholder public policy discussions.

120. Many reports highlighted capacity-building events, such as educational programmes, conferences and workshops. Several organizations indicated a focus on facilitating multi-stakeholder dialogue. Reference was sometimes made to the participation in forums developing Internet governance procedures and policies, with the Council of Europe outlining its responsibility for facilitating the negotiation of treaties on Internet policy. WIPO discussed its extensive contribution in mediating intellectual property disputes with regard to domain naming, and ITU referred to its work on uniting existing cybersecurity initiatives to provide an overarching framework for multi-stakeholder consensus.

121. While the efforts made in support of enhanced cooperation varied in nature between the different organizations, the performance reports suggest that the Tunis Agenda's call for enhanced cooperation had been taken seriously by respondents.

b. Internet Governance Forum

122. IGF moved into the third year of its provisional five-year lifespan and held its annual meeting in Hyderabad, India, from 3 to 6 December 2008. The overall theme was "Internet for All". More than 1,400 participants from 94 countries took part in the meeting. The IGF has matured in several respects. The third forum allowed for the discussion of politically sensitive issues in a climate of good faith and succeeded in reducing people's apprehensions and concerns. The main sessions were organized as thematic days under the following headings: "Reaching the Next Billion", "Promoting Cyber-Security and Trust" and "Managing Critical Internet Resources". The last day covered "Emerging Issues — the Internet of Tomorrow" and "Taking

Stock and the Way Forward". In parallel, 87 self-organized workshops, best-practice forums, dynamic coalition meetings and open forums were scheduled around the broad themes of the main sessions and the overall mandate of IGF.

123. Some common threads emerged from the discussion. Multi-stakeholder cooperation was seen as a prerequisite to tackling all existing problems. All users were part of the Internet, and all actors had a shared responsibility to find solutions. While it was recognized that there was a need to discuss Internet governance issues globally, it was felt that there was a need to act locally. There was a general understanding that there were no "one-size-fits-all" solutions. All countries had to find their own solutions, corresponding to their own situation. Through the sharing of best practices and the exchange of information, they could find solutions that were adapted to their needs.

124. The 2008 meeting also addressed the review process, as called for by the Tunis Agenda for the Information Society. Formal consultations will be held at the fourth IGF meeting in 2009, to allow for a timely decision by the United Nations membership within the five-year deadline. The fourth annual meeting will be held in Sharm el-Sheikh, Egypt, from 15 to 18 November 2009.

125. In 2008, there was also a spread of national and regional IGF initiatives that fed into the annual IGF meeting. Two initiatives were reported from Africa: an East African IGF was held in Nairobi, bringing together outcomes from national meetings held in Kenya, Rwanda, Uganda and the United Republic of Tanzania. Another meeting took place in Dakar, focusing on West African country issues for Internet governance. An IGF in the Latin American and Caribbean region was held in Montevideo, and a European dialogue on Internet governance was held in Strasbourg, France, hosted by the Council of Europe. National IGF meetings were held in the United Kingdom, in Italy and in Germany.

(iii) Measuring ICT for development

126. During 2008, the Partnership on Measuring ICT for Development continued to assist developing countries in collecting ICT data based on internationally agreed standards, compiling and disseminating indicators globally and regionally, revising and expanding the core list of indicators and examining new issues, such as measuring the economic and social impact of ICT.

127. In its resolution 2008/3, the Economic and Social Council acknowledged the work of the Partnership to develop indicators and recommended that it consider the creation of benchmarks and impact indicators, for further consideration by the United Nations Statistical Commission, in order to track progress towards the attainment of the specific goals and targets set out in the World Summit outcome documents. The Statistics Division has included the core indicators collected by different members of the partnership in its newly established United Nations data portal. The core ICT in education indicators were developed by the UNESCO Institute for Statistics following a pilot data collection, regional workshops and discussion with ministries of education. The Institute is now concentrating on expanding those indicators for countries that have undertaken nationwide implementations of new technology in schools.

128. The Partnership revised the core list of ICT indicators in consultation with national statistical offices. The revised list was presented to the fortieth session of

the Statistical Commission and covers (a) indicators on ICT infrastructure and access; (b) access to and use of ICT by households and individuals; (c) ICT use by businesses; (d) ICT use in education; (e) the ICT sector; and (f) trade in ICT goods.

129. Following repeated calls from policymakers for data on the social and economic impact of ICT, the Partnership decided to establish a new task group on impacts. It will examine how impacts can be measured and what the data requirements are. The goal is to provide countries with a set of statistical and analytical tools to carry out their own impact assessments.

130. The individual members of the Partnership have continued to carry out technical assistance and capacity-building for developing economies. This includes the development and delivery of training courses by UNCTAD and ITU, country-level advisory missions, regional and national workshops organized by different members and the preparation of practical guidebooks, such as the OECD guide to the information society, the UNCTAD *Manual for the Production of Statistics on the Information Economy* and the ITU *Manual for Measuring ICT Access and Use by Households and Individuals*. In May, the Partnership released a comprehensive statistical report, *The Global Information Society: a Statistical View*, which presented the ICT indicators available globally and an assessment of progress in measuring the information society and data gaps that remain.

131. The World Summit Stocktaking Database, which is maintained under the stewardship of ITU, has become a useful tool for the exchange of information on the implementation projects in relation to the action lines. By May 2008, more than 3,800 projects had been registered in the database. The *Report on the WSIS Stocktaking 2008*, which was also published in May, updates stakeholders on activities undertaken by Governments and other organizations with regard to the achievement of World Summit objectives and targets from the end of 2005 to mid-2008.

132. The future work of the Partnership will focus on: (a) continuing to revise the core list of indicators, including developing indicators on measuring e-government; (b) expanding the work on measuring ICT impact; (c) continuing to assist developing countries on their work on ICT statistics, through regional and national seminars and training workshops, as well as technical advice to countries (the manuals developed by UNCTAD and ITU on measuring business and household ICT statistics and their related training courses will be useful tools in this effort); and (d) continuing to raise political awareness of the importance of ICT measurement by improving communication tools and participating actively in international efforts to measure progress in the achievement of the World Summit targets and the Millennium Development Goals.

IV. Findings and recommendations

133. Considerable progress was made in 2008 towards the implementation of the outcomes of the World Summit on the Information Society. Numerous activities have been reported by the various entities of the United Nations system. However, as there is no reporting mechanism in place with regard to activities undertaken by other stakeholders, it remains difficult for the action line facilitators and the regional commissions to assess the efforts made by civil society, business entities and multi-stakeholder partnerships, and to report on them to the Commission on Science

and Technology for Development secretariat. Also, the number of stakeholders and of recommendations and commitments, as well as the absence of benchmarks and targets in the Geneva Plan of Action, complicates the assessment of World Summit implementation.

134. With regard to action line facilitation, while some entities have reported on the successful mobilization of relevant stakeholders through electronic networks and face-to-face consultations and meetings, others have continued to encounter considerable difficulties in achieving the participation of all stakeholders and reported a low participation rate for new stakeholders in the facilitation process. One obstacle identified was the high cost associated with face-to-face facilitation meetings in Geneva, which deters participation from developing-country stakeholders.

135. There is a need for greater coordination among the leading facilitator agencies and the Commission on Science and Technology for Development secretariat, with a view to streamlining and clustering World Summit-related events, including the action line facilitation meetings, into a one-week event, to take place back-to-back with the annual regular session of the Commission. At an open consultation meeting organized by ITU and UNESCO on 15 September 2008, some participants suggested, inter alia, that the cluster of World Summit-related events should be organized with opening and closing plenary meetings and parallel sessions on action lines in between, and that the events could be organized along themes, including ICTs for the Millennium Development Goals, financial mechanisms, security and open access to scientific literature. The organizers of the World Summit-related events for 2009 are taking several of those suggestions into account.

136. There is also a need to benchmark progress towards the attainment of the specific targets and goals set out in the Geneva Plan of Action and the Tunis Agenda for the Information Society. In this regard, the Commission, through its secretariat, may consider collaborating closely with UNGIS, the lead moderators and facilitators to group the 11 action lines into thematic clusters.

137. New topics that were not centre stage at the first and second phases of the World Summit on the Information Society in 2003 and 2005 continue to emerge, such as online privacy and child protection on the Internet. It is recommended that the Commission in its future work focus not only on the positive sides of the emerging information society, but also on the various risks, including "phishing" and other types of cybercrime.

138. The Commission may consider focusing on pro-poor ICT policies and applications, including the need for access to broadband at the grass-roots level, with a view to narrowing the digital divide between and within countries.

139. More emphasis is required by all stakeholders on the empowerment aspects of new ICTs. Empowerment and the strengthening of democratic processes and ICTs in education should be priority themes for the Commission. Greater attention should also be given by all stakeholders to the potential contributions of ICTs towards the Millennium Development Goals and the reduction of poverty.

140. While the supply of ICT infrastructure remains a priority for many developing countries, it is important to recognize that increasing Internet penetration alone does not necessarily allow for an information society for all. Meaningful access, at the individual or community level, requires more than infrastructure. Human capacities —

with an estimated 776 million illiterate adults and 75 million out-of-school children — and the lack of local content remain serious bottlenecks in this context. People need the funds to afford access and the skills to make use of the services and equipment. The Commission should therefore seek to foster a broader understanding of access and stress the demand-side factors, with a focus on enabling communities and empowering citizens.